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Mayor Mark Begich

# Anchorage Water & Wastewater Utility Treatment Division

May 5, 2005



U.S. Environmental Protection Agency, Region 10 NPDES Compliance Unit 1200 Sixth Avenue, OW-133 Seattle, Washington 98101

Subject: BOD Percent Removal - NPDES Permit No. AK-002255-1

The John M. Asplund Water Pollution Control Facility has been granted a 301(h) waiver from secondary treatment. Although there isn't a percent removal requirement specifically identified in the NPDES permit, there is a requirement in the NPDES regulations that treatment plants with a 301(h) waiver achieve at least a 30 percent BOD removal calculated on a monthly basis. During April 2005, the facility had a BOD removal of 29 percent.

Influent loadings to the facility have declined in recent years, primarily due to a reduction in commercial fish processing activities. This has resulted in a similar decline in the facility's BOD removal capability. Although the decline appears to be leveling off, it is apparent that the Asplund facility's BOD removal figures will occasionally be less than the 30% required by the 301(h) regulations.

The permit renewal application was submitted to EPA in January 2005. The Anchorage Water and Wastewater Utility (AWWU) has requested a change in reporting percent BOD removal from a monthly average basis to a twelve month rolling average. 40 CFR Section 125.6(c)(1) allows an applicant to request a different averaging basis so long as they can demonstrate that:

- The wastewater treatment facility is adequately designed and well operated
- The applicant will meet all requirements under section 301(h) of the CWA and subpart G of 40 CFR Section 125 with the averaging basis selected
- The applicant cannot achieve 30 percent removal on a monthly average basis because
  of circumstances beyond the applicant's control, including relatively high soluble to
  insoluble BOD ratios on a fluctuating basis and cold climates resulting in cold influent
  AWWU included this demonstration in the application.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

I can be contacted at (907) 564-2799 should you have any guestions.

Sincerely,

Kris Warren

Manager, Treatment Division - AWWU

is Warren

Cc: Alaska Department of Environmental Conservation, Division of Air & Water Quality John F. Knue Jr. (Jack), General Foreman, John M. Asplund WPCF - AWWU



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OFFICE OF COMPLIANCE AND ENFORCEMENT

#### **Anchorage Water & Wastewater Utility Treatment Division**

November 6, 2006

U.S. Environmental Protection Agency, Region 10 NPDES Compliance Unit 1200 Sixth Avenue, OW-133 Seattle, Washington 98101

Subject:

Fecal Coliform Exceedance

NPDES Permit No. AK-002255-1

The John M. Asplund Water Pollution Control Facility has a fecal coliform limit that reads "Not more than 10% of the samples shall exceed 2600 FC MPN/100 mL." Two samples during October 2006 exceeded 2600 FC MPN/100 mL, which exceeds the 10% limit. The monthly average permit limit of 850 FC MPN/ 100 mL was not exceeded.

October 13, 2006: October 17, 2006: 5400 FC MPN/100 mL

>24000 FC MPN/100 mL

The chlorine demand of the wastewater began increasing during the second week in October. In response to resultant lower chlorine residuals, the millivolt setpoint on the ORP controller was adjusted upwards twice before the high coliform count of October 13, 2006 and twice more before the high coliform count on October 17, 2006. Our investigation concluded that the high coliform count on October 17, 2006 was caused by an inadequate chlorine feed, due to the operator not following established procedures when emptying chlorine containers. This incident has been reviewed with the operator to ensure that the established procedure will be followed in future. Our goal remains to review chlorine usage and residuals daily in order to adjust the set point appropriately before getting high coliform counts, rather than in response to them. Our intention is to set the chlorine feed high enough to get adequate fecal coliform kill while minimizing chlorine usage.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

I can be contacted at (907) 564-2799 should you have any questions.

MUNI

Sincerely,

Craig Woolard, P.E., Ph.D.

Director, Treatment Division

Alaska Department of Environmental Conservation, Division of Water

John F. Knue Jr. (Jack), General Foreman, John M. Asplund WPCF - AWWU



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Mayor Mark Begich

# Anchorage Water & Wastewater Utility Treatment Division

August 7, 2006

U.S. Environmental Protection Agency, Region 10 NPDES Compliance Unit 1200 Sixth Avenue, OW-133 Seattle, Washington 98101

Subject: Fecal Coliform Exceedance

NPDES Permit No. AK-002255-1



The John M. Asplund Water Pollution Control Facility has a fecal coliform limit that reads "Not more than 10% of the samples shall exceed 2600 FC MPN/100 mL." Two samples during July 2006 exceeded 2600 FC MPN/100 mL, which exceeds the 10% limit. The monthly average permit limit of 850 FC MPN/100 mL was not exceeded.

July 7, 2006: July 10, 2006: ≥24000 FC MPN/100 mL 3500 FC MPN/100 mL

The chlorine demand of the wastewater began increasing in early July. In response to low residuals and the two high coliform counts, the millivolt setpoint on the ORP controller was adjusted upwards 11 times during July, including on the dates of the two high coliform counts. Our goal remains to review chlorine usage and residuals daily in order to adjust the set point appropriately before getting high coliform counts, rather than in response to them. Our intention is to set the chlorine feed high enough to get adequate fecal coliform kill while minimizing chlorine usage.

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I can be contacted at (907) 564-2799 should you have any questions.

hi Warren

Sincerely,

J. Kris Warren

Director, Treatment Division - AWWU

Cc: Alaska Department of Environmental Conservation, Division of Water John F. Knue Jr. (Jack), General Foreman, John M. Asplund WPCF - AWWU



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Mayor Mark Begich

# Anchorage Water & Wastewater Utility Treatment Division

October 7, 2004

U.S. Environmental Protection Agency, Region 10 NPDES Compliance Unit 1200 Sixth Avenue, OW-133 Seattle, Washington 98101



Subject: Fecal Coliform Exceedance - NPDES Permit No. AK-002255-1

The John M. Asplund Water Pollution Control Facility has a fecal coliform limit that reads "Not more than 10% of the samples shall exceed 2600 FC MPN/ 100 mL." Two samples during September 2004 exceeded 2600 FC MPN/100 mL, which exceeds the 10% limit. The monthly average permit limit of 850 FC MPN/ 100 mL was not exceeded.

September 22, 2004:

3500 FC MPN/100 mL

September 23, 2004:

≥ 24000 FC MPN/100 mL

We analyzed the operational parameters at the time of sampling. Our investigation did not pinpoint specific causes for these relatively high coliform values. The equipment functioned as expected, there were no operational abnormalities, and wastewater characteristics were within the normal range for this time of year. The set point on the chlorine feed controller was decreased on September 20, 2004 due to demand changes and increasing chlorine residual in order to keep the measured residual under the maximum daily permit limit of 1.2 mg/L. The one anomaly noted was that the chlorine residuals measured on these two days were within the range typically providing adequate coliform kill. We continue to review chlorine usage and residuals daily to alert us of the need to adjust the controller set point. Our goal continues to be to set the chlorine feed high enough to get adequate fecal coliform kill without exceeding chlorine residual permit limits.

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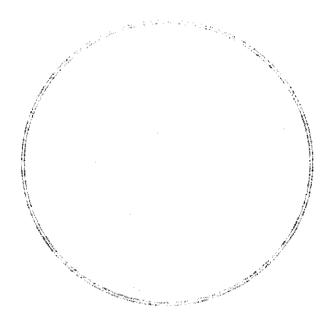
I can be contacted at (907) 564-2799 should you have any questions.

Sincerely,

J. Kris Warren

Manager, Treatment Division - AWWU

Cc: Alaska Department of Environmental Conservation, Division of Air & Water Quality John F. Knue Jr. (Jack), General Foreman, John M. Asplund WPCF - AWWU







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Anchorage Water & Wastewater Utility
Treatment Division

September 8, 2004

U.S. Environmental Protection Agency, Region 10 NPDES Compliance Unit 1200 Sixth Avenue, OW-133 Seattle, Washington 98101

Subject: Fecal Coliform Exceedance - NPDES Permit No. AK-002255-1

The John M. Asplund Water Pollution Control Facility has a fecal coliform limit that reads "Not more than 10% of the samples shall exceed 2600 FC MPN/ 100 mL." Five samples during August 2004 exceeded 2600 FC MPN/100 mL, which exceeds the 10% limit. The monthly average permit limit of 850 FC MPN/ 100 mL was also exceeded with a result of 1213 FC MPN/ 100 mL.

August 5, 2004: 5400 FC MPN/100 mL August 16, 2004: ≥ 24000 FC MPN/100 mL August 23, 2004: ≥ 24000 FC MPN/100 mL August 24, 2004: 5400 FC MPN/100 mL August 25, 2004: 16000 FC MPN/100 mL

There have been occasional exceedances of the fecal coliform permit limits as we continue to gain experience in adjusting the Oxidation Reduction Potential (ORP) Chlorine Feed Control System for the wide range of conditions that it operates under. We analyzed the operational parameters at the time of each August sample listed above, as well as previous coliform exceedances. Our investigation did not pinpoint specific causes for the coliform exceedances this month. The equipment functioned as expected, there were no operational abnormalities, and wastewater characteristics were within the normal range for this time of year. We increased the set point on the chlorine feed controller on July 30, August 3, August 18, August 19, August 20, August 21 and again on August 26 in an effort to prevent exceedances. We continue to review chlorine usage daily to alert us of the need to adjust the ORP set point. We have developed a spread sheet to electronically gather various data relating to the disinfection system in an effort to establish, through actual operating experience, a method to anticipate controller set point adjustments. Our goal continues to be to meet permit limits while minimizing chlorine usage.

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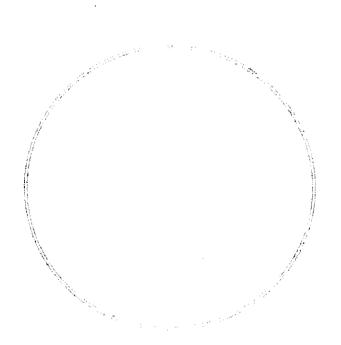
Sincerely,

ປ. Kris Warren

//Manager, Treatment Division - AWWU

h, Warren

Cc: Alaska Department of Environmental Conservation, Division of Air & Water Quality John F. Knue Jr. (Jack), General Foreman, John M. Asplund WPCF - AWWU





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Mayor Mark Begich

# **Anchorage Water & Wastewater Utility Treatment Division**

September 7, 2005

U.S. Environmental Protection Agency, Region 10 NPDES Compliance Unit 1200 Sixth Avenue, OW-133 Seattle, Washington 98101

Subject:

Fecal Coliform Exceedance; Flow Measurement

NPDES Permit No. AK-002255-1

The John M. Asplund Water Pollution Control Facility has a fecal coliform limit that reads "Not more than 10% of the samples shall exceed 2600 FC MPN/ 100 mL." Two samples during August 2005 exceeded 2600 FC MPN/100 mL, which exceeds the 10% limit. The monthly average permit limit of 850 FC MPN/ 100 mL was not exceeded.

August 9, 2005: August 26, 2005: ≥24000 FC MPN/100 mL 9200 FC MPN/100 mL

The wastewater for this time of year had an unusually high chlorine demand at times, interspersed with periods of low chlorine demand due to high rainfall. This presented a challenge to setting an optimal chlorine feed controller set point. We continue to review chlorine usage and residuals daily to alert us of the need to adjust the set point. Our goal continues to be to set the chlorine feed high enough to get adequate fecal coliform kill without exceeding chlorine residual permit limits.

The permit also requires continuous flow monitoring and flow-proportional influent and effluent sampling. On August 1, the flow monitor started to malfunction. AWWU instrument technicians determined that the transducer was malfunctioning and a new one was ordered. The transducer was installed and the system calibrated. It was then discovered that the receiver/transmitting unit was malfunctioning as well and needed to be completely replaced. The unit was put on order and is expected to be received, installed and working properly by mid-September.

Therefore, the flows for August are estimated by a visual reading of the flume yardstick at least every three hours. These eight readings per day are averaged to get the daily flow estimate. The influent and effluent composite samples were time composites during the month, rather than flow proportional composites.

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I can be contacted at (907) 564-2799 should you have any questions.

Sincerely,

J. Kris Warren

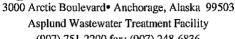
Manager, Treatment Division - AWWU

In Warren

Cc: Alaska Department of Environmental Conservation, Division of Air & Water Quality John F. Knue Jr. (Jack), General Foreman, John M. Asplund WPCF - AWWU



#### Anchorage Water and Wastewater Utility



(907) 751-2200 fax: (907) 248-6836

August 6, 2004

U.S. Environmental Protection Agency, Region 10 NPDES Compliance Unit 1200 Sixth Avenue, OW-133 Seattle, Washington 98101

Subject: Fecal Coliform Exceedance - NPDES Permit No. AK-002255-1

The John M. Asplund Water Pollution Control Facility has a fecal coliform limit that reads "Not more than 10% of the samples shall exceed 2600 FC MPN/100 mL." Four samples during July 2004 exceeded 2600 FC MPN/100 mL, which exceeds the 10% limit:

July 19, 2004: ≥ 24000 FC MPN/100 mL July 21, 2004: 16000 FC MPN/100 mL July 26, 2004: 16000 FC MPN/100 mL  $\geq$  24000 FC MPN/100 mL July 27, 2004:

There have been occasional exceedances of the fecal coliform permit limits as we continue to gain experience in adjusting the Oxidation Reduction Potential (ORP) Chlorine Feed Control System for the wide range of conditions that it operates under. Our investigation did not pinpoint specific causes for the coliform exceedances this month. The equipment functioned as expected, there were no operational abnormalities, and wastewater characteristics were within the normal range for this time of year. We analyzed the operational parameters at the time of each July sample listed above, as well as previous coliform exceedances. We increased the set point on the chlorine feed controller on July 26 and again on July 29 in an effort to prevent future exceedances. We continue to review usage daily to alert us of the need to adjust the ORP set point. Our goal continues to be to meet permit limits while minimizing chlorine

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I can be contacted at (907) 564-2799 should you have any questions.

Sincerely,

J. Kris Warren

Manager, Treatment Division - AWWU

Mark Spano for

Alaska Department of Environmental Conservation, Division of Air & Water Quality John F. Knue Jr. (Jack), General Foreman, John M. Asplund WPCF - AWWU



#### **Anchorage Water and Wastewater Utility**



3000 Arctic Boulevard• Anchorage, Alaska 99503 Asplund Wastewater Treatment Facility (907) 751-2200 fax: (907) 248-6836

April 9, 2004

U.S. Environmental Protection Agency, Region 10 NPDES Compliance Unit 1200 Sixth Avenue, OW-133 Seattle, Washington 98101

Subject: Fecal Coliform Exceedance - NPDES Permit No. AK-002255-1

The John M. Asplund Water Pollution Control Facility has a fecal coliform limit that reads "Not more than 10% of the samples shall exceed 2600 FC MPN/ 100 mL."

Three samples during March 2004 exceeded 2600 FC MPN/100 mL, which exceeds the 10% limit:

March 8, 2004:

9,200 FC MPN/100 mL

March 10, 2004:

>24,000 FC MPN/100 mL

March 30, 2004:

16,000 FC MPN/100 mL

There have been occasional exceedances of the residual or coliform permit limits as we gain experience in adjusting the Oxidation Reduction Potential (ORP) Chlorine Feed Control System for the wide range of conditions that it operates under. Our investigation did not pinpoint specific causes for the coliform exceedances this month. The equipment functioned as expected, there were no operational abnormalities, and wastewater characteristics were within the normal range for this time of year. We analyzed the operational parameters at the time of the March 2004, as well as previous coliform exceedances, and made two changes in an effort to prevent future exceedances. The ORP setpoint was once again increased. We also established a new operational guideline for chlorine dosage and will review usage daily to alert us of the need to adjust the ORP set point. Our goal continues to be to meet permit limits while minimizing chlorine usage.

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Sincerely.

J. Kris Warren

Manager, Treatment Division - AWWU

Tark Spano, for

Cc: Alaska Department of Environmental Conservation, Division of Air & Water Quality

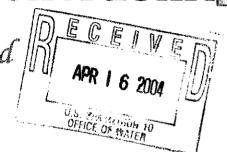
Mark Spano, Water Quality Supervisor -AWWU

John F. Knue Jr. (Jack), General Foreman, John M. Asplund WPCF - AWWU

# ASPLUND

# Wastewater Treatment Facility

Monitoring Period



	JANUARY		JULY
	FEBRUARY	Note of the second	AUGUST
	MARCH	To Annual has been g	SEPTEMBER
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100000000000000000000000000000000000000	JUNE		DECEMBER



#### **Anchorage Water and Wastewater Utility**



3000 Arctic Boulevard Anchorage, Alaska 99503 Asplund Wastewater Treatment Facility (907) 751-2200 fax: (907) 248-6836

February 9, 2004

U.S. Environmental Protection Agency, Region 10 NPDES Compliance Unit 1200 Sixth Avenue, OW-133 Seattle, Washington 98101

**Subject:** Fecal Coliform Exceedance

The John M. Asplund Water Pollution Control Facility, NPDES Permit No. AK-002255-1, has a fecal coliform limit that reads "Not more than 10% of the samples shall exceed 2600 FC MPN/ 100 mL."

Two samples during January 2004 exceeded 2600 FC MPN/100 mL, which exceeds the 10% limit:

January 11, 2004:

3,500 FC MPN/100 mL

January 13, 2004:

9,200 FC MPN/100 mL

These higher than normal levels of fecal coliform resulted from the Oxidation Reduction Potential (ORP) Chlorine Feed Control System not increasing feed rate fast enough to keep up with rising chlorine demand. Both samples were collected during the same time of day, when the chlorine demand typically increases. Our 2003 coliform exceedances were reviewed to further evaluate the relationship between ORP set point and coliform levels. Based on the investigation, the controller set point has been increased in an effort to eliminate future exceedances. We have had occasional exceedances of the residual or coliform permit limits as we gain experience in adjusting the ORP for the wide range of conditions that it operates under. Our goal continues to be to meet permit limits while minimizing chlorine usage.

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Sincerely,

J. Kris Warren

Manager, Treatment Division - AWWU

nach Spano, for

Cc: Alaska Department of Environmental Conservation, Division of Air & Water Quality

Mark Spano, Water Quality Supervisor -AWWU
John F. Knue Jr. (Jack), General Foreman, John M. Asplund WPCF - AWWU

#### ANCHORAGE WATER & WASTEWATER UTILITY

# "A New Standard of Excellence"

#### **Treatment Division**



3000 Arctic Blvd. Anchorage, Alaska 99503-3813 Phone (907) 786-5671 Fax (907) 786-5681 http://www.awwu.biz



October 8, 2003

1101 1 4 2003

U.S. EPA Region 10 NPDES Compliance Unit 1200 Sixth Avenue, OW-133 Seattle, WA 98101

NPDES Permit #AK-002255-1, John M. Asplund WWTF Reference:

September 2003 Permit Exceedance

On September 4, 2003 the Asplund Wastewater Treatment Facility had an exceedance of the narrative permit limitation "There shall be no discharge of floating solids, visible foam, or oily wastes which produce a sheen on the surface of the receiving water." This occurred when operators conducted annual beach tower sluice gate maintenance, which involves opening and closing the sluice gate at the bottom of the beach tower. The beach tower has a weir in it that maintains a head on the water in the chlorine detention tunnel and keeps the Cook Inlet salt water/silt from backing up the outfall into the chlorine detention tunnel. Some built-up debris flushed from the tower when the gate was opened. The work occurred during an incoming tide that peaked around 2:30 PM.

Around 3:00 PM AWWU received a call about grease on the beach at Pt. Woronzof from a person who had been walking on the beach. Upon investigation we found a line of grease balls and some plastic debris along the high tide mark. The grease line extended from the beach tower approximately 7,000 feet along the beach/mudflat to the northeast. AWWU called the Alaska Department of Environmental Conservation at 4:15 PM to report the incident and shortly thereafter had a cleanup crew on the beach. Our cleanup crew cleaned up the large majority of the grease balls and small plastic debris into garbage bags by 8:00 PM. The high tide that occurred around 2:30 AM that night was higher than the earlier high tide and left a much thinner and shorter line of grease balls. A crew cleaned up the remainder of the debris on Friday September 5. We estimate the total volume of material collected to be about four cubic yards. The incident was called in to the NPDES Compliance Hotline on September 5 by Jack Knue, the Asplund General Foreman.

We intend to come up with an alternate way of exercising the gate to prevent the discharge of this type of material prior to the next scheduled preventive maintenance. Should you have any questions, please contact me by phone at (907) 564-2799 or by email at mailto:kris.warren@awwu.biz.

Sincerely,

ป์. Kris Warren

Manager, Treatment Division

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cc:

ADEC Division of Air and Water Quality, Southcentral Office

John F. (Jack) Knue, General Foreman, AWWU Mark Spano, Water Quality Supervisor, AWWU

Master					
distant and a	2428				

# NPDES Non-Compliance Reporting - Summary of Call

CallwasRecievedBy	Date of Call	Time of Call	Date of NonComp		William Andrews Control of the Contr
Athena Ralstin	9/5/2003	_,	9/4/2003	•	Add Record
Facility Name			Permit #	TARACO MINISTRA	Find Record
Municipality of Anchorage (COOK INLET)			AK0022551		Fillu Hecord
Name of Caller			Phone # of Caller		Close Form
Jack Canoe	and the state of the section of the	יינו מונים או	9072438873		
Nature Of Noncompliance Effluent Limit Violation	Is the situation urg	jent?			Print Record
Parameters	- Principal Control of State Control C				
Parameter		SampleRes	ult PermitLimit	Unit	Master
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Violation Descrip and Comments					
During scheduled maitenance the effluent was cleaned up the next day.	line beach tower h	ad a bypass about	3 cubic yards of grease balls	and plastic washed હ	up on the beach line. It
Other Comments					
4					

#### ANCHORAGE WATER & WASTEWATER UTILITY

"A New Standard of Excellence"
Treatment Division

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3000 Arctic Blvd. Anchorage, Alaska 99503-3813 (907) 243-8873 http://www.awwu.biz



August 8, 2003

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U.S. Environmental Protection Agency, Region 10 NPDES Compliance Unit 1200 Sixth Avenue, OW-133 Seattle, Washington 98101

#### **Subject: Fecal Coliform Exceedances**

The John M. Asplund Water Pollution Control Facility, NPDES Permit No. AK-002255-1, exceeded the monthly average fecal coliform bacteria permit limit of 850 FC MPN/100ml. In addition, more than 10% of the samples exceeded 2600 FC MPN/100mL.

The July 2003 fecal coliform bacteria monthly average was 1141 FC MPN/100mL. Five samples exceeded the 2600 FC MPN/100mL:

July 1, 2003:

Owned by the Municipality of Anchorage

>24,000 FC MPN/100mL

July 2, 2003:

3,500 FC MPN/100mL

July 20, 2003:

>24,000 FC MPN/100mL

July 28, 2003:

>24,000 FC MPN/100mL

July 29, 2003:

3,500 FC MPN/100mL

These higher than normal levels of fecal coliform resulted from the continuing adjustment of an Oxidation Reduction Potential (ORP) Chlorine Feed Control System. As a result of these instances, the controller set point was increased on July 7 and 30, in an effort to eliminate future occurrences. Our goal in installing this control system is to effectively meet permit limits while minimizing chlorine usage. We have had occasional exceedances of the residual or coliform permit limits as we gain experience in adjusting the ORP for the wide range of operating conditions. We will continue to do our best to avoid any such exceedances in future.

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I can be contacted at (907) 564-2799 should you have any questions.

Sincerely,

NA + 1 793

Kris Warren

Manager, Treatment Division

Cc:

Alaska Department of Environmental Conservation, Division of Air & Water Quality

Mark Spano, Water Quality Supervisor, AWWU

John F. Knue Jr. (Jack), General Foreman, John M. Asplund WPCF, AWWU

#### ANCHORAGE WATER & WASTEWATER UTILITY

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Owned by the Municipality of Anchorage

# "A New Standard of Excellence" Treatment Division Point Woronzof

3000 Arctic Blvd. Anchorage, Alaska 99503-3813 (907) 243-8873 http://www.awwu.biz



July 9, 2003

U.S. Environmental Protection Agency, Region 10 NPDES Compliance Unit 1200 Sixth Avenue, OW-133 Seattle, Washington 98101

**Subject:** Fecal Coliform Exceedance

The John M. Asplund Water Pollution Control Facility, NPDES Permit No. AK-002255-1, has a fecal coliform limit that reads "Not more than 10% of the samples shall exceed 2600 FC MPN/ 100 mL."

Two samples during June 2003 exceeded 2600 FC MPN/100 mL:

June 9, 2003:

>24,000 FC MPN/100 mL

June 30, 2003:

>24,000 FC MPN/100 mL

These higher than normal levels of fecal coliform resulted from the continuing adjustment of an Oxidation Reduction Potential (ORP) Chlorine Feed Control System. In this instance, the controller setpoint was increased in an effort to eliminate future occurrences. Our goal in installing this control system is to effectively meet permit limits while minimizing chlorine usage. We have had occasional exceedances of the residual or coliform permit limits as we gain experience in adjusting the ORP for the wide range of conditions that it operates under. We continue to review data collected from the ORP controller on a daily basis, adjust auto probe wash times as we seek better control and seek the optimum manual probe wash frequency. We have scheduled a project to relocate the chlorine rapid mixer this year. This is expected to further improve the mixing of the chlorine with the plant effluent thus further improving the efficiency of the disinfection process and eliminating all coliform exceedances. We will continue to do our best to avoid any such exceedances in future.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

I can be contacted at (907) 564-2799 should you have any questions.

Sincerely,

J. Kris Warren

/Manager, Treatment Division

us Waven

Cc:

Alaska Department of Environmental Conservation, Division of Air & Water Quality

Mark Spano, Water Quality Supervisor, AWWU

John F. Knue Jr. (Jack), General Foreman, John M. Asplund WPCF, AWWU

#### ANCHORAL WATER & WASTEWATE UTILITY



#### Treatment Division

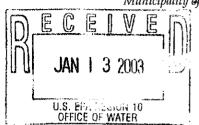
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Owned by the Municipality of Anchorage

January 9, 2003

U.S. Environmental Protection Agency, Region 10 NPDES Compliance Unit 1200 Sixth Avenue, OW-133 Seattle, Washington 98101



Subject:

**Fecal Coliform Exceedance** 

The John M. Asplund Water Pollution Control Facility, NPDES Permit No. AK-002255-1, has a fecal coliform limit that reads "Not more than 10% of the samples shall exceed 2600 FC MPN/ 100 mL."

Three samples during December 2002 exceeded 2600 FC MPN/100 mL:

December 10, 2002: >24,000 FC MPN/100 mL December 11, 2002: >24,000 FC MPN/100 mL December 16, 2002: >24,000 FC MPN/100 mL

These higher than normal levels of fecal coliform resulted from the continuing adjustment of an Oxidation Reduction Potential (ORP) Chlorine Feed Control System installed November 2001. In this instance, the controller setpoint was increased in an effort to eliminate future occurrences. Our goal in installing this control system is to effectively meet permit limits while minimizing chlorine usage. We have had occasional exceedances of the residual or coliform permit limits as we gain experience in adjusting the ORP for the wide range of conditions that it operates under. We will continue to do our best to avoid any such exceedances in future.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

I can be contacted at (907) 564-2799 should you have any questions.

Sincerely,

J. Kris Warren

Manager, Treatment Division

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Cc:

Alaska Department of Environmental Conservation, Division of Air & Water Quality

Mark Spano, Water Quality Supervisor, AWWU

John F. Knue Jr. (Jack), General Foreman, John M. Asplund WPCF, AWWU

# ASPLUND Wastewater Treatment Facility

# Monitoring Period 2002

JANUARY		JULY
FEBRUARY		AUGUST
MARCH		SEPTEMBER
APRIL		OCTOBER
MAY		NOVEMBER
JUNE	$\boxtimes$	DECEMBER

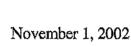
#### ANCHORAGE WATER & WASTEWATER UTILITY

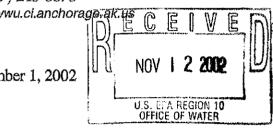
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(907) 243-8873 http://www.awwu.ci.anchoraga.ak.us





Anchorage

eorge P. Wuerch,

Mayor

U.S. EPA Region 10 NPDES Compliance Unit (OW-133) 1200 Sixth Avenue Seattle, WA 98101

Reference: NPDES Permit #AK-002255-1, John M. Asplund WWTF

To Whom It May Concern:

Owned by the

Municipality of Anchorage

The Final Effluent Daily Chlorine Residual Average Limit of 1.2 mg/L was exceeded on October 27, 2002 with a Daily Chlorine Residual Average of 1.32 mg/L.

This exceedance was due to an operational malfunction of the recently installed Oxidation Reduction Potential (ORP) Chlorine Feed Control and Monitoring System, along with misunderstandings of the operational procedures. We continue to inform and train the staff on the operations and regulatory requirements of this system as we build our working knowledge in the application of this new technology.

Our treatment facility staff will continue to do everything possible to prevent permit limit exceedances.

Should you have any questions, please call me at (907) 243-8873.

Sincerely,

John F. Knue Jr.

General Foreman, AWWU John M. Asplund WWTF

Kris Warren, AWWU Brian Crewdson, AWWU Anchorage Office, BPA SouthCentral Office, ADEC

#### ANCHORA EWATER & WASTEWAT . UTILITY



#### **Treatment Division**

3000 Arctic Boulevard Anchorage, Alaska 99503-3898 http://www.awwu.ci.anchorage.ak.us



March 6, 2002

U.S. Environmental Protection Agency, Region 10 NPDES Compliance Unit 1200 Sixth Avenue, OW-133 Seattle, Washington 98101

Subject: Fecal Coliform Limit

The John M. Asplund Water Pollution Control Facility, NPDES Permit No. AK-002255-1, has a fecal coliform limit that reads "Not more than 10% of the samples shall exceed 2600 FC MPN/mL." (Reference permit Part I.A.4. Table 1, footnote 2 - p. 4 of 39.) I suspect that this may be an error in the permit and that it was intended that the limit be 2600 FC MPN/100 mL. This was the limit in the preceding permit prior to the June 2000 reissuance. A review of the fact sheet and the draft permit for the 2000 reissuance seems to indicate that the intention was to carry over this limit unchanged to new permit.

Four samples during February 2002 exceeded 2600 FC MPN/100 mL:

February 9, 2002: 2800 FC MPN/100 mL February 11, 2002: 5400 FC MPN/100 mL February 26, 2002: 9200 FC MPN/100 mL February 27, 2002: 16000 FC MPN/100 mL

These samples do not exceed the "not more than 10%" permit limit of 2600 FC MPN/mL. Therefore, this has not been reported as an exceedance on the DMR. However, they are being reported because of the suspected error in the permit. This is the third time under the new permit that this situation has occurred. It occurred in October 2000 and January 2002. A letter was sent to your office with the DMR both times reporting the results and explaining the situation with the permit limit.

These higher than normal levels of fecal coliform resulted from adjustment of a newly installed Oxidation Reduction Potential (ORP) Chlorine Feed Control System. Our goal in installing this control system is to effectively meet permit limits while minimizing chlorine usage. We expected that during start-up and adjustment of the ORP that exceedances of the residual or coliform permit limits might occur. We will continue to do our best to avoid any exceedances.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

I can be contacted at (907) 564-2799 should you have any questions.

Sincerely,

Kris Warren

Manager, Treatment Division

Cc:

Alaska Department of Environmental Conservation, Division of Air & Water Quality

Mark Spano, Water Quality Supervisor, AWWU

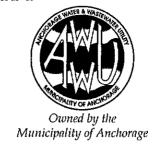
Jack Knue, General Foreman, John M. Asplund WPCF, AWWU

#### ANCHORA & WATER & WASTEWATL . UTILITY



#### **Treatment Division**

3000 Arctic Boulevard Anchorage, Alaska 99503-3898 http://www.awwu.ci.anchorage.ak.us



February 7, 2002

U.S. Environmental Protection Agency, Region 10 NPDES Compliance Unit 1200 Sixth Avenue, OW-133 Seattle, Washington 98101



Subject: Fecal Coliform Permit Limit

The John M. Asplund Water Pollution Control Facility, NPDES Permit No. AK-002255-1, has a fecal coliform limit that reads "Not more than 10% of the samples shall exceed 2600 FC MPN/mL." (Reference permit Part I.A.4. Table 1, footnote 2 - p. 4 of 39.) I suspect that this may be an error in the permit and that it was intended that the limit be 2600 FC MPN/100 mL. This was the limit in the permit prior to the June 2000 reissuance. A review of the fact sheet and the draft permit seems to indicate that the intention was to carry this limit over unchanged into the new permit.

Three samples during January 2002 exceeded 2600 FC MPN/100 mL:

January 7, 2002: 5400 FC MPN/100 mL January 8, 2002: 3500 FC MPN/100 mL January 9, 2002: 16000 FC MPN/100 mL

These samples do not exceed the permit limit of 2600 FC MPN/mL. Therefore, they have not been reported as an exceedance on the DMR. However, they are being brought to your attention because of the suspected error in the permit. This is the second time under the new permit that this situation has occurred. It occurred in October 2000 and a letter was sent to your office explaining the situation (copy enclosed).

These higher than normal levels of fecal coliform resulted from adjustment of a newly installed Oxidation Reduction Potential (ORP) Chlorine Feed Control System. Our goal in installing this control system is to effectively meet permit limits while reducing chlorine usage. We expected that during start-up and adjustment of the ORP that exceedances of the residual or coliform permit limits might occur, but will continue to do our best to avoid any exceedances.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

I can be contacted at (907) 564-2799 should you have any questions.

Sincerely,

Cc:

Mark Spano for J. Kris Warren

Manager, Treatment Division

Alaska Department of Environmental Conservation, Division of Air & Water Quality

Mark Spano, Water Quality Supervisor, AWWU

Jack Knue, General Foreman, John M. Asplund WPCF, AWWU

#### ANCHORA LWATER & WASTEWATL UTILITY



# Treatment Division Laboratory Services Section

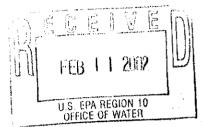
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Owned by the Municipality of Anchorage

November 8, 2000

Randall F. Smith, Director Office of Water U.S. Environmental Protection Agency, Region 10 NPDES Compliance Unit 1200 Sixth Avenue, OW-133 Seattle, Washington 98101



Subject:

**Fecal Coliform Permit Limit** 

The John M. Asplund Water Pollution Control Facility, NPDES Permit No. AK-002255-1, has a fecal coliform limit that reads "Not more than 10% of the samples shall exceed 2600 FC MPN/mL." (Reference permit Part I.A.4. Table 1, footnote 2 - p. 4 of 39.) I suspect that this may be an error in the permit and that it was intended that the limit be 2600 FC MPN/100 mL. This was the limit in the permit prior to the June 2000 reissuance. A review of the fact sheet and the draft permit seems to indicate that the intention was to carry this limit over unchanged into the new permit.

Four samples during October exceeded 2600 FC MPN/100 mL:

October 5, 2000:

>24000 FC MPN/100 mL

October 23, 2000:

3500 FC MPN/100 mL

October 30, 2000:

5400 FC MPN/100 mL

October 31, 2000:

5400 FC MPN/100 mL

These samples do not exceed the permit limit of 2600 FC MPN/mL. Therefore, they have not been reported as an exceedance on the DMR. However, they are being brought to your attention because of the suspected error in the permit. This is the first time under the new permit that this situation has occurred.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

I can be contacted at (907) 266-5217 should you have any questions.

Sincerely,

Mark Spano

Laboratory Services Supervisor

Cc:

Alaska Department of Environmental Conservation, Division of Air & Water Quality

Kris Warren, Treatment Division Manager, AWWU

Jack Knue, General Foreman, John M. Asplund WPCF, AWWU

#### ANCHORAGE WATER & WASTEWATER UTILITY

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# Treatment Division Point Woronzof

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http://www.awwu.ci.anchorage.ak.us/

November 1, 2002

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VS CA REGION 10

OFFICE OF WATER

U.S. EPA Region 10 NPDES Compliance Unit (OW-133) 1200 Sixth Avenue Seattle, WA 98101

Reference: NPDES Permit #AK-002255-1, John M. Asplund WWTF

To Whom It May Concern:

Owned by the Municipality of Anchorage

The Final Effluent Daily Chlorine Residual Average Limit of 1.2 mg/L was exceeded on October 27, 2002 with a Daily Chlorine Residual Average of 1.32 mg/L.

This exceedance was due to an operational malfunction of the recently installed Oxidation Reduction Potential (ORP) Chlorine Feed Control and Monitoring System, along with misunderstandings of the operational procedures. We continue to inform and train the staff on the operations and regulatory requirements of this system as we build our working knowledge in the application of this new technology.

Our treatment facility staff will continue to do everything possible to prevent permit limit exceedances.

Should you have any questions, please call me at (907) 243-8873.

Sincerely,

John F. Knue Jr.

General Foreman, AWWU John M. Asplund WWTF

cc: Kris Warren, AWWU
Brian Crewdson, AWWU
Anchorage Office, EPA
SouthCentral Office, ADBC

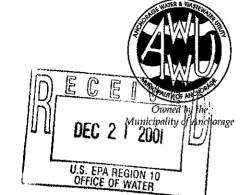
# George P. Wuerch,

Mayor

#### ANCHORAGE WATER & WASTEWATER UTILITY

#### Treatment Division

3000 Arctic Blvd. Anchorage, Alaska 99503 (907) 564-2799 http://www.ci.anchorage.ak.us



December 14, 2001

U.S. EPA Region 10 NPDES Compliance Unit 1200 Sixth Avenue, OW-133 Seattle, WA 98101

Reference: NPDES Permit #AK-002255-1, John M. Asplund WWTF

The purpose of this letter is to report a violation of the referenced discharge permit. The final effluent Maximum Daily Total Residual Chlorine limit of 1.2 mg/L was exceeded Thursday, December 6, 2001 with a result of >1.2 mg/L.

Five of the 24 daily readings were recorded as >2.0 mg/L, 2.0 being the highest reading the instrument will record. Averaging the numbers without the > sign resulted in an average of 1.2, so the real average is a bit higher. Should this situation occur in future, we've modified the method so as to measure a definite number rather than a greater than (>) value.

The high daily average residual resulted from adjustment of a newly installed Oxidation Reduction Potential (ORP) Chlorine Feed Control System. Our goal in installing this control system is to effectively meet permit limits while reducing chlorine usage.

This unit has the ability to collect data continuously and stores the last eleven days of data collected. This data was reviewed and compared to the typical operational data to develop startup parameters before the unit was placed in control. The unit was in total control for three of the chlorine feed rate changes causing the higher than normal residuals. The other two were no longer than 30 minutes in length and were necessary to observe the operation of the new feed control system to determine reaction times and other information to get the unit adjusted. Since last week when the unit was first put in operation, numerous adjustments have been made in order to work toward better control of the complete disinfection system.

It is to be expected that during start-up and adjustment of this instrument that exceedances of the residual and/or fecal coliform limits may occur. We will continue to do our best to avoid or minimize permit limit exceedances while getting this system fully operational.

We inadvertently failed to report this limit exceedance within the required 24 hour period. We have modified our standard operating procedures to prevent such an omission should another violation of this nature occur in the future.

Should you have any questions, please call me at (907) 564-2799.

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Sincerely,

Kris Warren Manager, Treatment Division

cc: Southcentral Office, ADEC